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WHAT IS CLAIMED IS:

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 Isolated DNA encoding the SbfI restriction
endonuclease, wherein the isolated DNA is obtainable from Streptomyces species Bf-61.

- 2. A recombinant DNA vector comprising a vector into which a DNA segment encoding the *Sbf*I restriction endonuclease has been inserted.
- 3. Isolated DNA encoding the *Sbf*I restriction endonuclease and *Sbf*I methylase, wherein the isolated DNA is obtainable from ATCC No. PTA-5371.

4. A vector which comprises the isolated DNA of claim 3.

- 5. A host cell transformed by the vector of claim 2 or 4.
- 20 6. A method of producing recombinant *SbfI* restriction endonuclease comprising culturing a host cell transformed with the vector of claims 2 or 4 under conditions suitable for expression of said endonuclease.